



## North Carolina Department of Environment and Natural Resources

Dexter Matthews, Director

Division of Waste Management

Beverly Eaves Perdue, Governor  
Dee Freeman, Secretary

November 15, 2012

Sent Via Email – [buddy.norris@averycountync.gov](mailto:buddy.norris@averycountync.gov)

Mr. Buddy Norris  
Avery County Solid Waste Director  
P.O. Box 640  
Newland, NC 28657

Re: *Annual Landfill Gas Monitoring Report*  
Closed Avery County MSW Landfill  
Solid Waste Permit Number 06-01  
DIN 17664

Dear Mr. Norris:

The Solid Waste Section has completed a review of the *Annual Landfill Gas Monitoring Report* dated November 2012 (DIN 17650) and submitted on behalf of Avery County by Smith Gardner for the closed and unlined Avery County MSW Landfill. Avery County currently operates an active landfill gas collection system with a flare at this facility.

In November 2011, five additional landfill gas monitoring wells were installed to monitor off-site properties adjacent to the Avery County MSW landfill. Three of the landfill gas monitoring wells were installed on the Unimin Property, and two landfill gas monitoring wells were installed on the Avery County Airport Authority property. These landfill gas monitoring wells have been added to the landfill gas monitoring well network. Monthly landfill gas monitoring for one year has indicated consistent methane exceedances at landfill gas monitoring wells P1, P7, and P11. Landfill gas monitoring wells P1 and P7 are located on-site, while landfill gas monitoring well P11 is located off-site on the Unimin Property.

Within the *Annual Landfill Gas Monitoring Report*, the County is recommending the following phased approach to modify the current landfill gas system:

- The installation of three new landfill gas extraction wells consisting of two phases. During Phase One, two landfill gas extraction wells that are four inches in diameter and approximately 60 feet deep will be installed on the northern portion of the property between current landfill gas extraction wells W1 and W3 and the limits of waste near Brushy Creek Road. The Phase One landfill gas extraction wells will be evaluated after six consecutive months. If it is determined that the Phase One installations have had influence on the landfill gas monitoring wells along Brushy Creek Road and on the Unimin Property, Phase Two will then be completed. During Phase Two, one additional landfill gas extraction well that will be four inches in diameter and approximately 20 feet deep will be installed on the southwestern portion of the property between current landfill gas extraction well W8 and the condensate tank area. The installation of this landfill gas extraction well should help to intercept the landfill gas migration from the waste mass to landfill gas monitoring well P-7;

- The installation of an isolation valve along the landfill gas header to isolate the southern landfill gas extraction wells;
- The installation of a flare collar extension in conjunction with the Phase One approach; and
- Continue monthly landfill gas monitoring at the facility.

As a result, the *Annual Landfill Gas Monitoring Report* is approved as described. Please implement the approved plan within 60 days of receipt of this letter. If you have any questions or concerns regarding this letter, please contact me by email at [jaclynne.drummond@ncdenr.gov](mailto:jaclynne.drummond@ncdenr.gov) or at 919-707-8294. Thank you for your continued cooperation with this matter.

Sincerely,



Jaclynne Drummond  
Compliance Hydrogeologist  
Solid Waste Section

cc sent via email: Mark Poindexter, Field Operations Supervisor  
Deb Aja, Environmental Senior Specialist  
Jason Watkins, Western District Supervisor  
Allen Gaither, Permitting Engineer  
Joan Smyth, Smith Gardner